

CLAIMS

1. An information recording medium comprising:

a substrate on which the grooves are formed;

5 a recording layer to which an optical beam is applied;

and

a cover layer for protecting said recording layer,

wherein said cover layer, said recording layer and said  
substrate are disposed in this order from the side where said

10 optical beam is applied; and

wherein the thickness of said recording layer formed in  
an area opposed to said groove and forming a recording track  
on which the information is recorded is greater than the  
thickness of said recording layer formed in an area opposed  
15 to an area between said two adjacent grooves on said substrate.

2. The information recording medium according to claim 1,  
wherein a reflecting layer for reflecting said optical beam  
is disposed between said recording layer and said substrate,  
and said recording layer is formed on said reflecting layer  
20 provided on said substrate by a spin coat method.

3. The information recording medium according to claim 1  
or 2, wherein the depth of said groove and the thickness of  
said recording layer forming said recording track are set up  
such that

25  $-360^\circ < \theta_0, \theta_1 < -180^\circ, \text{ and } \theta_0 < \theta_1$

where the phase in the reflected light of said optical beam  
from said recording track on which said information is not

recorded is  $\theta_0$ , the phase in the reflected light of said optical beam from said recording track on which said information is recorded is  $\theta_1$ , and the phase in the reflected light of said optical beam from an area on said substrate between said two adjacent grooves for said information recording medium on which said information is not recorded is  $0^\circ$ .

4. An information recording apparatus for recording information on the information recording medium according to any one of claims 1 to 3, comprising:

10       an encoder device for encoding said information to generate the encoded information;

            a modulation device for modulating said optical beam based on said generated encoded information; and

            a radiation device for radiating said modulated optical

15     beam to said recording track from the side of said cover layer to record said information.